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June 13, 1997

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JUN 13 1997

Federal Communications Commission
Communications Division

VIA HAND DELIVERY

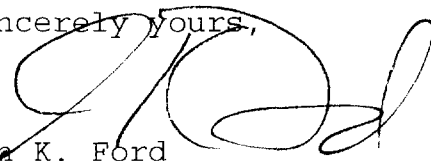
Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

Re: Advanced Television Systems and Their Impact Upon the
Existing Television Broadcast Service (MM Docket No.
87-268)
Petition for Reconsideration

Dear Mr. Caton:

WRNN-TV Associates Limited Partnership, through counsel,
hereby files the enclosed Petition for Reconsideration of the
Sixth Report and Order in the above-captioned proceeding. Please
contact the undersigned if you have any questions.

Sincerely yours,


Ann K. Ford

Enclosures

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ORIGINAL

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554

In the Matter of)
)
Advanced Television Systems)
and Their Impact Upon the)
Existing Television Broadcast)
Service)

MM Docket No. 87-268

RECEIVED

JUN 13 1997

Federal Communications Commission
General Secretary

To: The Commission

PETITION FOR RECONSIDERATION

1. WRNN-TV Associates Limited Partnership ("WRNN"), licensee of Station WRNN-TV, Kingston, New York, hereby files this Petition for Reconsideration of the Commission's Sixth Report and Order (FCC 97-115, released April 21, 1997) in the above-captioned proceeding. Specifically, WRNN seeks clarification of the Sixth Report and Order with respect to the protection of a station's DTV Grade B service contour to the same extent as its present NTSC Grade B contour. Furthermore, WRNN seeks clarification of the provision of the Sixth Report and Order which provides television licensees with the ability to return to their original NTSC channels at the end of the DTV transition. Finally, WRNN seeks reconsideration of the Sixth Report and Order to the extent that DTV Channel 21 was allotted to Kingston, New York, and reserved for Station WRNN-TV.

Background

2. Station WRNN-TV, which currently operates on NTSC Channel 62, provides regional news programming to its community of license and to communities throughout the New York City Area of Dominant Influence ("ADI"). Station WRNN-TV, like most television

broadcasters, exercises its must-carry rights to the fullest extent within its ADI.

3. In the Sixth Report and Order, the Commission allotted DTV Channel 21 for Station WRNN-TV. While the Commission estimates that this channel will result in a DTV/NTSC area match of 99%,¹ the attached engineering analysis indicates that the Grade B contour of the DTV service area will be significantly less than that of the current NTSC service area.² Reduction of the Grade B contour would decrease the total population served by Station WRNN-TV, and may adversely affect the station's must-carry rights on certain cable systems as well.

4. Although the Commission has indicated that a station will be permitted to request an increase in operating power to provide service to that station's Grade B contour,³ it is uncertain whether Station WRNN-TV will be able to avail itself of this rule. Station WLIW-TV, Garden City, New York, which currently operates on NTSC Channel 21, has been allotted DTV Channel 22. That station may be able to return to its NTSC channel after the transition period, as the Sixth Report and Order notes that such changes are permissible "wherever feasible."⁴ If Station WLIW-TV is permitted to return to

¹Sixth Report and Order at B-32.

²See Engineering Statement at figure 5.

³See Sixth Report and Order at n.70 and 47 C.F.R. § 73.622(f)(3).

⁴Sixth Report and Order at ¶ 84. Station WRNN-TV cannot return to its original NTSC channel, as Channel 62 is outside of the core spectrum.

Channel 21, the channel could preclude WRNN from replicating its existing Grade B coverage, thereby disserving the public interest by causing the loss of Station WRNN-TV's unique programming to individuals living within the current NTSC Grade B contour, but outside of the proposed DTV Grade B contour.

Discussion

5. WRNN seeks clarification from the Commission that stations such as Station WRNN-TV, which may lose crucial Grade B coverage as a result of the DTV transition, will be able to make power and height modifications necessary to ensure that DTV Grade B coverage is the equivalent of existing NTSC Grade B coverage. Such steps will ensure that existing viewers of a station will continue to receive the same complement of over-the-air signals and will also ensure that stations continue to enjoy the same must-carry rights following the DTV conversion as they do today.

6. WRNN also requests clarification of the circumstances in which a television station will not be able to return to its NTSC channel. Specifically, would a station be able to return to its original NTSC channel even if operation on that channel would preclude another station from replicating its NTSC Grade B coverage on its DTV channel?

7. WRNN recognizes that the Commission may not be able to provide assurances in this proceeding that Station WRNN-TV will be able to operate on DTV Channel 21 with a Grade B contour identical to that of its current NTSC operation. In that event, WRNN requests that the Commission substitute DTV Channel 48 for DTV

Channel 21 at Kingston, New York.⁵ As the attached engineering analysis indicates, the allotment of DTV Channel 48 to Kingston will result in a dramatic reduction of net interference as compared to DTV Channel 21. The use of Channel 21 would result in interference to 799,000 persons in a 1,313 square kilometer area, whereas the use of Channel 48 at an equivalent power level would cause interference to only 68,000 persons in a 1,061 square kilometer area.⁶ Furthermore, increasing the effective radiated power of Station WRNN-TV on DTV Channel 48 to ensure replication of its current Grade B contour would cause interference to only 313,000 persons--far fewer than would receive interference caused by the use of DTV Channel 21 at the power authorized by the Commission in the Sixth Report and Order.⁷ As decreasing net interference resulting from the DTV transition, as well as the continued provision by Station WRNN-TV of service to its current service area, are both clearly in the public interest, WRNN requests the substitution of Channel 48 for Channel 21 at Kingston.

⁵WRNN previously requested the allotment of DTV Channel 48 at Kingston in this proceeding. See Comments of WRNN-TV Associates Limited Partnership in MM Docket No. 87-268, filed November 22, 1996.


⁶Engineering Statement at 3.

⁷Engineering Statement at 4-5. Furthermore, the interference level could be reduced through the use of a directional antenna. Id. at 5.

Conclusion

8. For the reasons stated above, WRNN respectfully requests clarification of the Sixth Report and Order regarding protection of the DTV Grade B contour and the circumstances in which a station can return to its original NTSC allotment following the DTV transition. WRNN requests reconsideration of the Sixth Report and Order to the extent that DTV Channel 21 was allotted to Kingston, New York, and requests in its place the allotment of DTV Channel 48.

Respectfully submitted,



Ann K. Ford
Michael Ruger

Counsel for WRNN-TV Associates
Limited Partnership

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Telephone (202) 861-1500

Filed: June 13, 1997

TECHNICAL STATEMENT
IN SUPPORT OF THE
PETITION FOR RECONSIDERATION OF THE
SIXTH REPORT AND ORDER IN
MM DOCKET NO. 87-268

This technical statement and associated exhibits were prepared on behalf station WRNN at Kingston, New York in support of a Petition for Reconsideration of the **Sixth Report and Order** in MM Docket No. 87-268 in which the Commission adopted a Table of Allotments for digital television (DTV), rules for initial DTV allotments, procedures for assigning DTV frequencies and plans for spectrum recovery. The purpose is to provide technical information supporting a request to change the allotment channel of WRNN from channel 21 to channel 48.

Station WRNN is currently authorized to operate on channel TV channel 62 (758-764 MHz) with a using a directional antenna with a maximum effective radiated power (ERP) of 5000 kW and an antenna height above average terrain (HAAT) of 591 meters. (FCC File No. BLCT-851224KF). In the **Sixth Report and Order** in MM Docket No. 87-268 (DTV Docket), the FCC has proposed channel 21 for WRNN's DTV allotment with a maximum ERP of 93.8 kW at the current HAAT of 591 meters. Station WRNN requests that the Commission modify the WRNN DTV allotment to specify channel 48 in lieu of channel 21. As detailed below, it appears that DTV operation on channel 48 will provide greater interference-free service, will result in less interference caused to other stations and will permit greater flexibility for a possible increase in facilities.

Figure 1 is a separation study for the channel 21 DTV allotment based on the minimum distance separation requirements of "new" Section 73.623(d). Three short-spacings are indicated.

Using a DTV interference analysis program available through the National Telecommunications and Information Agency (NTIA), we have determined the predicted service and interference for WRNN's current DTV operation on channel 21 (ERP 93.8 kW/HAAT 591 m). The NTIA program uses Version 1.2.2 of the Longley-Rice point-to-point radio propagation model. Figure 2 depicts the service and interference for the current DTV channel 21 allotment. The map shows the outline of the predicted Grade B contour, and the regions of calculated interference from other NTSC and DTV operations. The clear or unshaded area indicates where WRNN provides interference-free service. The current channel 21 DTV allotment will provide interference-free service to 1,514,000 persons within 14,950 square kilometers. The current channel 21 DTV allotment is predicted to cause interference to the following stations:

Call/Location	Channel	DTV Interference Areas (square kilometers)
		Current DTV CH 21
WTXX, Waterbury, CT	NTSC-20	245
WNBU, Concord, NH	NTSC-21	77
WXXA, Albany, NY	NTSC-23	83
WLIW, Garden City, NY	NTSC-21	893
WHMT, Schenectady, NY	NTSC-17	15
WWLP, Springfield, MA	NTSC-22	0
WCDC, Adams, MA	NTSC-19	0
WWTI, Watertown, NY	DTV-21	0
WHP, Harrisburg, PA	NTSC-21	0
WSBE, Providence, RI	DTV-21	0
	Total	1,313 sq. km

The population within the total interference area resulting from the channel 21 DTV operation will be 799,000 persons.

Figure 3 is a separation study for the channel 48 DTV allotment based on the minimum distance separation requirements of "new" Section 73.623(d). Three short-spacings are indicated.

Figure 4 depicts the service and interference for the proposed DTV channel 48 allotment based on an ERP of 169 kW (determined based on the provisions of Appendix B of the DTV Docket). The map shows the outline of the predicted Grade B contour, and the regions of calculated interference from other NTSC and DTV operations. The clear or unshaded area indicates where WRNN provides interference-free service. The proposed channel 48 DTV allotment will provide interference-free service to 1,643,000 persons within 13,850 square kilometers. The proposed channel 48 DTV allotment is predicted to cause interference to the following stations:

Call/Location	Channel	DTV Interference Areas (square kilometers)
		Proposed DTV CH 21
WEDW, Bridgeport, CT	DTV-49	7
WYDN, Worcester, MA	NTSC-48	1,005
WLED, Littleton, NH	DTV-48	2
WGTW, Burlington, NJ	NTSC-48	8
WNJU, Linden, NJ	NTSC-47	39
	Total	1,061

The population within the total interference area resulting from the proposed channel 48 DTV operation (ERP 169 kW) will be 68,000 persons.

Figure 5 is a map which depicts the NTSC 64 dBu, Grade B contour based on WRNN's licensed facilities on channel 62. Also shown is the DTV 41 dBu, noise

limited contour based on the current channel 21 DTV operation (ERP 93.8 kW/HAAT 591 m). As indicated, the 41 dBu for the channel 21 DTV allotment does not extend as far as the current NTSC Grade B contour in any direction except towards the northwest. The disparity is especially apparent towards the south, a critical area for WRNN, and occurs due to the Commission's use of a "dipole factor" when determining the ERP necessary to replicate the NTSC Grade B contour. In order match Grade B coverage towards, WRNN proposes that the FCC specify an ERP of 258 kW for the channel 48 DTV operation. The DTV 41 dBu, noise limited contour based on an ERP of 258 kW and an HAAT of 591 meters has also been shown on Figure 5.

Figure 6 depicts the service and interference for the proposed DTV channel 48 allotment based on an ERP of 258 kW. The map shows the outline of the predicted Grade B contour, and the regions of calculated interference from other NTSC and DTV operations. The clear or unshaded area indicates where WRNN provides interference-free service. The proposed channel 48 DTV allotment will provide interference-free service to 2,043,000 persons within 18,850 square kilometers. The proposed channel 48 DTV allotment is predicted to cause interference to the following stations:

Call/Location	Channel	DTV Interference Areas (square kilometers)
		Proposed DTV CH 21
WEDW, Bridgeport, CT	DTV-49	11
WYDN, Worcester, MA	NTSC-48	2,345
WLED, Littleton, NH	DTV-48	5
WGTW, Burlington, NJ	NTSC-48	289
WNJU, Linden, NJ	NTSC-47	71
WYDC, Corning, NY	NTSC-48	11
WMHT, Schenectady, NY	DTV-34	4
WMHQ, Schenectady, NY	DTV-45	4
	Total	2,740

The population within the total interference area resulting from the proposed channel 48 DTV operation (ERP 258 kW) will be 313,000 persons. It is believed that a properly designed directional antenna would permit a reduction in this interference area.

Finally, the following provides a summary of the population and area within the service and interference areas for the current and proposed DTV allotments.

DTV Facilities	Total Interference-Free Service Area		Total Interference Area	
	Area (sq. km)	Population	Area (sq. km)	Population
FCC Proposed Ch. 21 ERP 93.8 kW/HAAT 591 m	14,950	1,514,000	1,313	799,000
Proposed Ch. 48 ERP 169 kW/HAAT 591 m	13,850	1,643,000	1,061	68,000
Proposed Ch. 48 ERP 258 kW/HAAT 591 m	18,850	2,043,000	2,740	313,000

If there are any questions concerning this exhibit, please contact the office of the undersigned.



W. Jeffrey Reynolds

du Treil, Lundin & Rackley, Inc.
240 North Washington Blvd.
Suite 700
Sarasota, Florida 34236
(941) 366-2611

June 11, 1997

DTV -> TV Separation Study

Job Title :WRNN - DTV CH 21
Zone : 1
Channel 21 (512-518 MHz)

Separation Buffer 32 km
FCC TV DB Date : 06/06/97
Coordinates : 42-05-06 74-06-00

Call	City	Channel	ERP(kW)	Latitude	Bear.	Dist.	Req.
Status	St	FCC File No.	Zone	HAAT(m)	Longitude	True (km)	(km)
WMHT	SCHENECTADY	*17(+)	2630	42-38-13	7.5	61.85	24.1/80.5
LIC	NY	BLET-331	I	299	74-00-06	-18.65	SHORT
ALLOCATED TO ALBANY-SCHENECTADY, NY.							
WHCTTV	HARTFORD	18(-)	3160	41-46-30	107.4	113.11	24.1/80.5
LIC	CT	BLCT-870304KI	I	299	72-48-04	32.61	CLEAR
WCDCTV	ADAMS	19(o)	447	42-38-14	50.9	98.25	24.1/80.5
LIC	MA	BLCT-810105KE	I	637	73-10-07	17.75	CLEAR
WTXX	WATERBURY	20(o)	2240	41-31-04	124.8	109.77	9.7/88.5
LIC	CT	BLCT-820428KE	I	366	73-01-07	21.27	CLEAR
WLIW	GARDEN CITY	*21(-)	3160	40-47-19	159.3	153.82	217.3
LIC	NY	BLET-790131LQ	I	122	73-27-09	-63.48	SHORT
WWLP	SPRINGFIELD	22(o)	3390	42-05-05	89.5	115.53	9.7/88.5
LIC	MA	BLCT-841128KJ	I	268	72-42-14	27.03	CLEAR
WWLP	SPRINGFIELD	22(o)	4470	42-05-05	89.5	115.53	9.7/88.5
APP	MA	BMPCT-930826KE	I	267	72-42-14	27.03	CLEAR
DA TABULATIONS UNAVAILABLE.							
WXXATV	ALBANY	23(-)	3020	42-37-01	6.9	59.53	24.1/80.5
LIC	NY	BLCT-820810KG	I	366	74-00-46	-20.97	SHORT
ALLOCATED TO ALBANY-SCHENECTADY, NY.							
WEDH	HARTFORD	*24(o)	813	41-46-27	107.5	112.79	24.1/80.5
LIC	CT	BLET-341	I	262	72-48-20	32.29	CLEAR

** End of TV Separation Study for Channel 21 **

DTV ->DTV Separation Study

Job Title :WRNN - DTV CH 21
Zone : 1
Channel 21 (512-518 MHz)

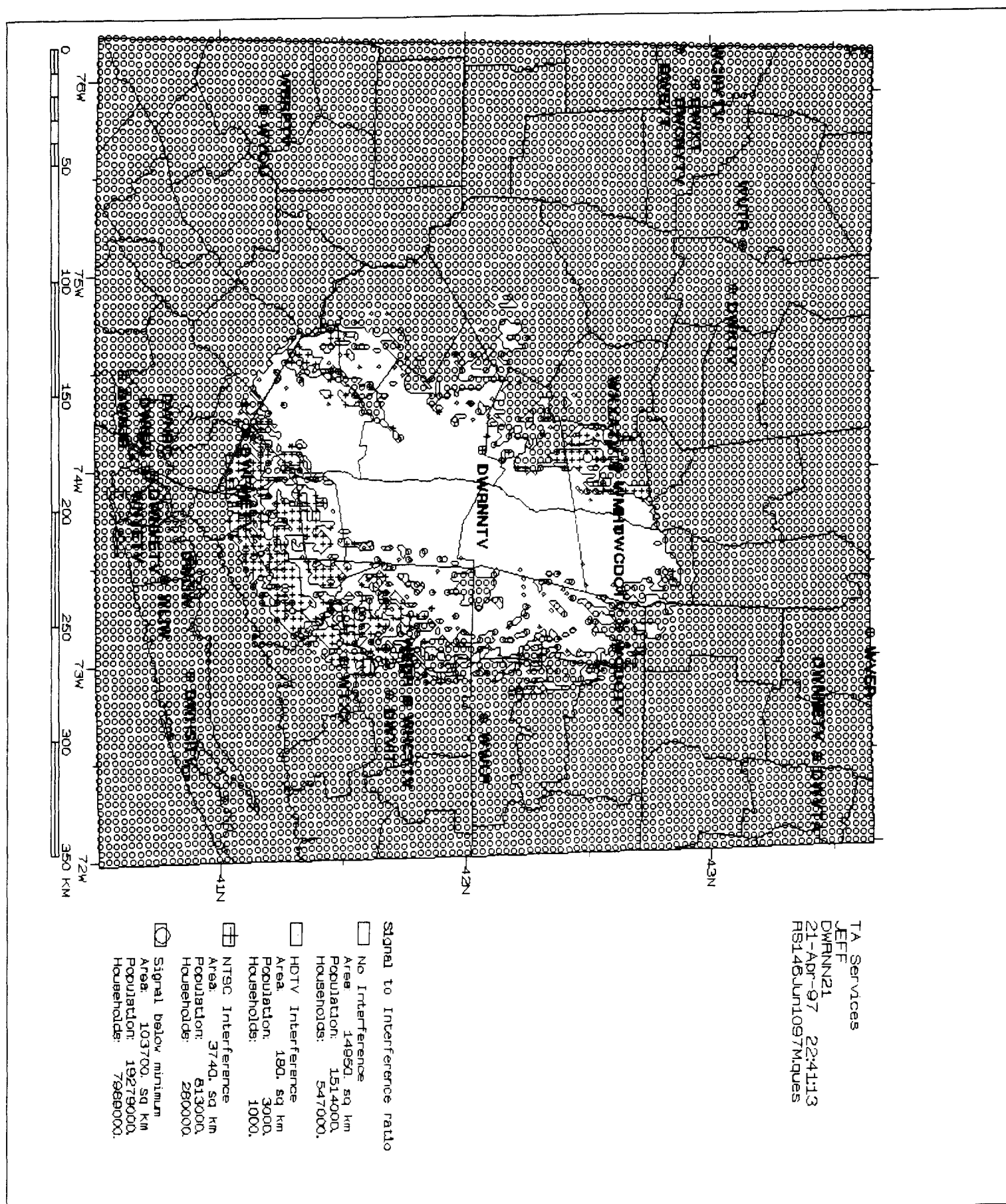
Separation Buffer 32 km
FCC DTV DB Date: 05/09/97
Coordinates : 42-05-06 74-06-00

Call	City	Channel	ERP(kW)	Latitude	Bear.	Dist.	Req.
Status	St	FCC File No.	Zone	HAAT(m)	Longitude	True (km)	(km)
DWRNNTV	KINGSTON	21	93.80	42-05-06	.0	.00	
DTVALT	NY	I	591	74-06-00			
DWSBETV	PROVIDENCE	21	50.00	41-48-18	97.3	220.02	196.3
DTVALT	RI	I	182	71-28-24		23.72	CLEAR

** End of DTV Separation Study for Channel 21 **

Figure 2

WRNN - Current DTV CH 21 (ERP 93.8 kW)



TA Services
JEFF
DWNN21
21-Apr-97 22:41:13
RS146JUN1097MQUES

DTV -> TV Separation Study

Job Title :WRNN - CH 48 DTV
Zone : 1
Channel 48 (674-680 MHz)

Separation Buffer 32 km
FCC TV DB Date : 05/30/97
Coordinates : 42-05-06 74-06-00

Call Status	City St	FCC File No.	Zone	Channel ERP(kW)	HAAT(m)	Latitude Longitude	Bear. True	Dist. (km)	Req. (km)
WGGBTV LIC	SPRINGFIELD MA		40(o) I	4270 322	DA	42-14-30 72-38-57	81.2	121.16 40.66	24.1/80.5 CLEAR
WMHQ LIC	SCHENECTADY NY		45(o) I	2950 338	DA	42-37-37 74-00-40	6.9	60.65 -19.85	24.1/80.5 SHORT
ALLOCATED TO ALBANY-SCHENECTADY, NY.									
WYDN CP MOD	WORCESTER MA		*48(+) I	3020 398		42-08-32 72-13-28	87.0	155.26 -62.04	217.3 SHORT
WYDN APP	WORCESTER MA		*48(+) I	27.5 244	DA	42-18-14 71-53-51	81.6	183.55 -33.75	217.3 SHORT
WYDC LIC	CORNING NY		48(+) I	12 166	DA	42-09-43 77-02-15	273.0	243.07 25.77	217.3 CLEAR
WGTW APP	BURLINGTON NJ		48(-) I	5000 364		40-02-49 75-14-08	203.2	245.65 28.35	217.3 CLEAR
WGTW CP	BURLINGTON NJ		48(-) I	2340 335		40-02-36 75-14-33	203.3	246.24 28.94	217.3 CLEAR
WEDW LIC	BRIDGEPORT CT		*49(-) I	1950 222	DA	41-16-43 73-11-08	139.4	117.56 29.06	9.7/88.5 CLEAR
WNJN LIC	MONTCLAIR NJ		*50(+) I	2090 243		40-51-53 74-12-03	183.6	135.80 55.30	24.1/80.5 CLEAR
ALLOC.	PITTSFIELD MA	-	51(+) I		0	42-26-48 73-15-12	59.7	80.59 .09	24.1/80.5 CLOSE
NEW APP	PITTSFIELD MA		51(+) I	5000 345		42-32-42 73-17-09	52.3	84.37 3.87	24.1/80.5 CLOSE
REQUESTS A WAIVER OF FREEZE									
WOCD LIC	AMSTERDAM NY		55(o) I	5000 223	DA	42-59-05 74-10-49	356.3	100.17 19.67	24.1/80.5 CLEAR
WRNNTV LIC	KINGSTON NY		62(+) I	5000 591	DA	42-05-06 74-06-00	.0	.00 24.10	24.1/80.5 CLEAR
WMBCTV LIC	NEWTON NJ		63(o) I	2190 223		41-00-36 74-35-39	199.1	126.32 45.82	24.1/80.5 CLEAR

** End of TV Separation Study for Channel 48 **

DTV ->DTV Separation Study

Job Title :WRNN - CH 48 DTV

Separation Buffer 32 km

Zone : 1

FCC DTV DB Date: 05/09/97

Channel 48 (674-680 MHz)

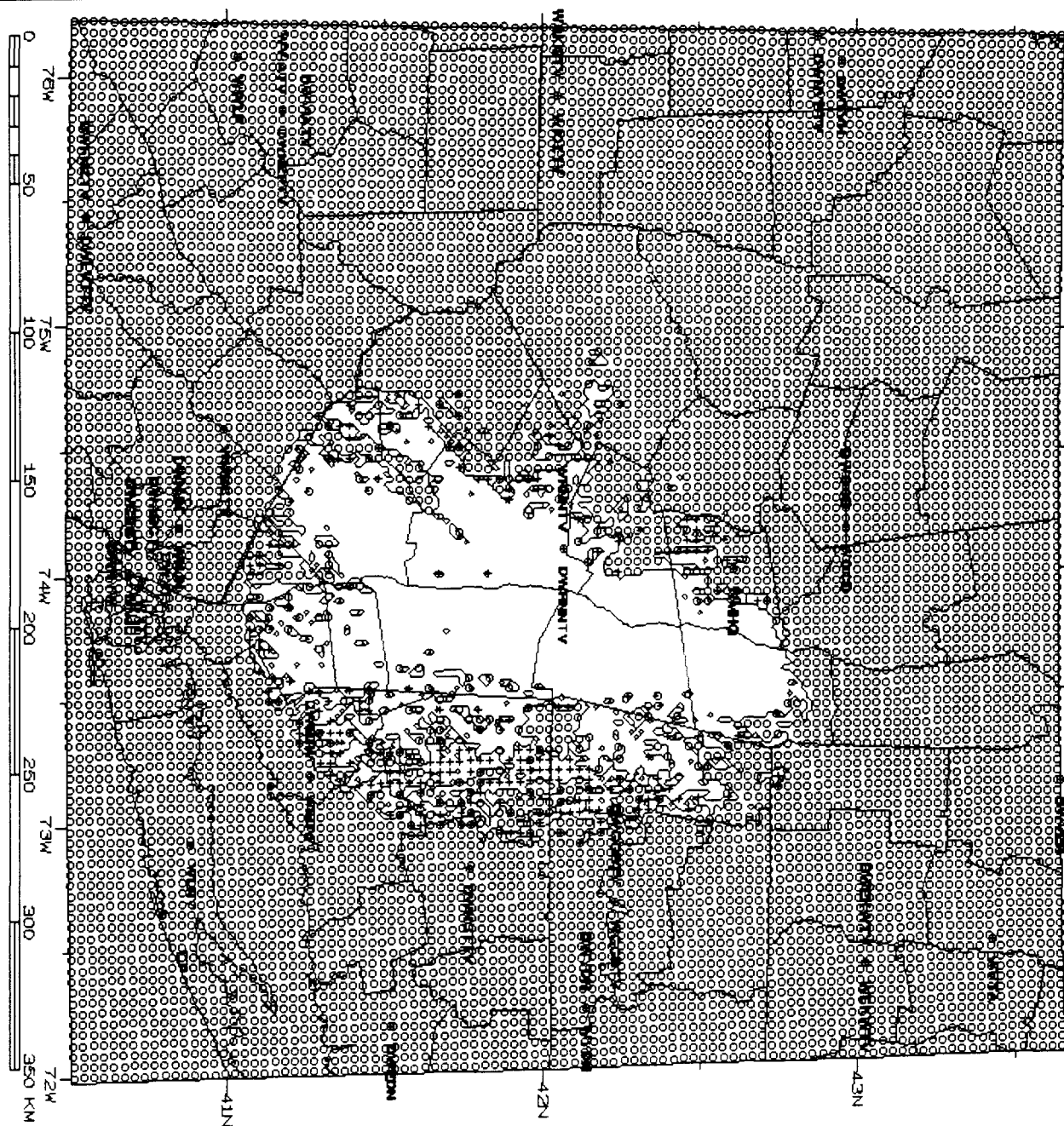
Coordinates : 42-05-06 74-06-00

Call	City	Channel	ERP(kW)	Latitude	Bear.	Dist.	Req.
Status	St	FCC File No.	Zone	HAAT(m)	Longitude	True (km)	(km)

No DTV records located on this channel & within the required separation plus a safety factor.

Figure 4

WRNN - Proposed DTV CH 48 (ERP 169 kW)



TA Services
JEFF
DWRRN2
21-Apr-97 22:41:13
RS146Jun0597Z34ques

- Signal to Interference ratio
- ☐ No Interference
Area: 13850. sq km
Population: 1643000.
Households: 559000.
 - ☐ HDTV Interference
Area: 0. sq km
Population: 0.
Households: 0.
 - ☐ NTSC Interference
Area: 2840. sq km
Population: 325000.
Households: 112000.
 - ☐ Signal below minimum
Area: 105880. sq km
Population: 19641000.
Households: 8416000.

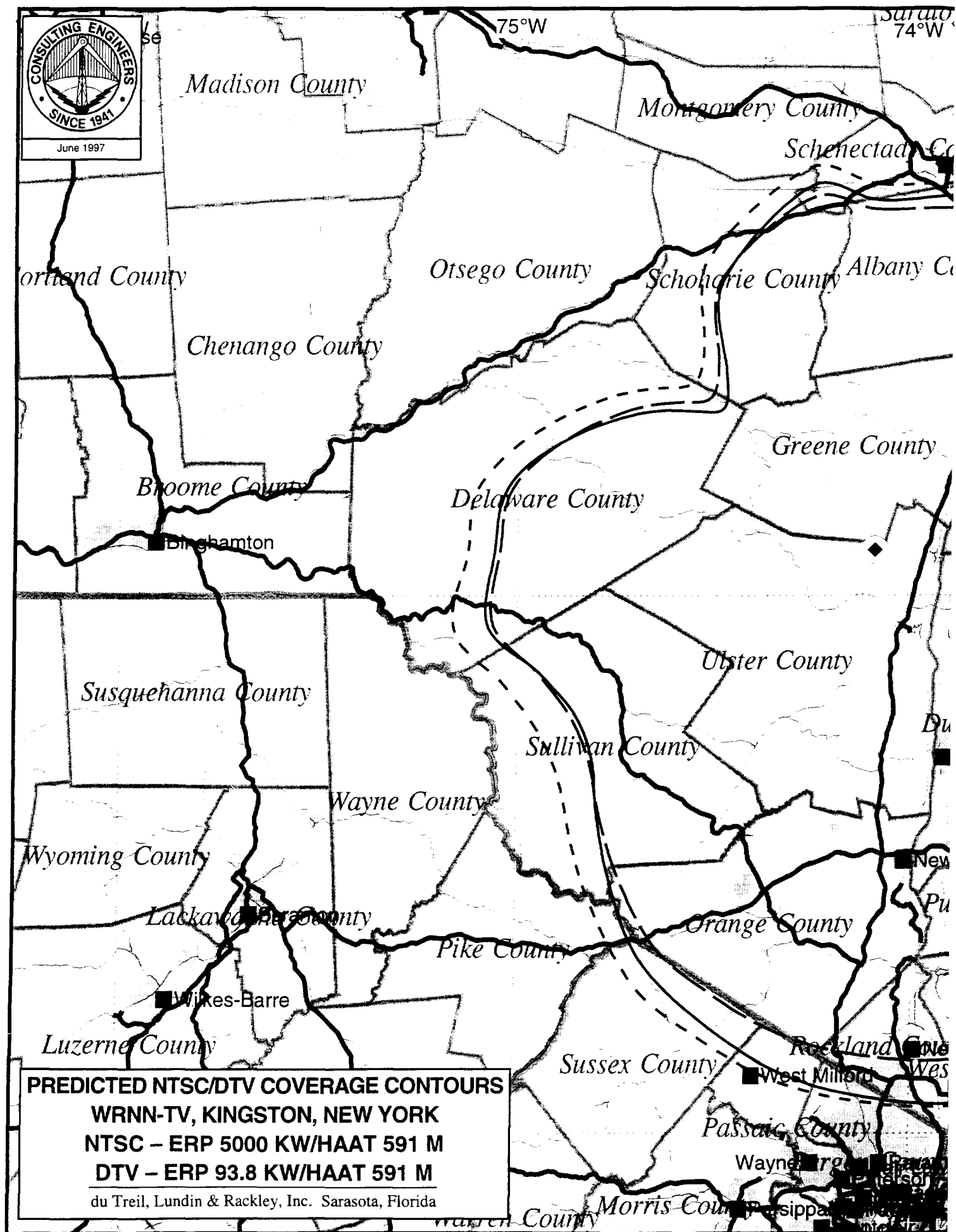
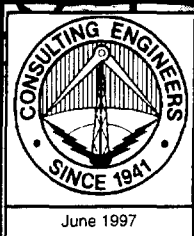
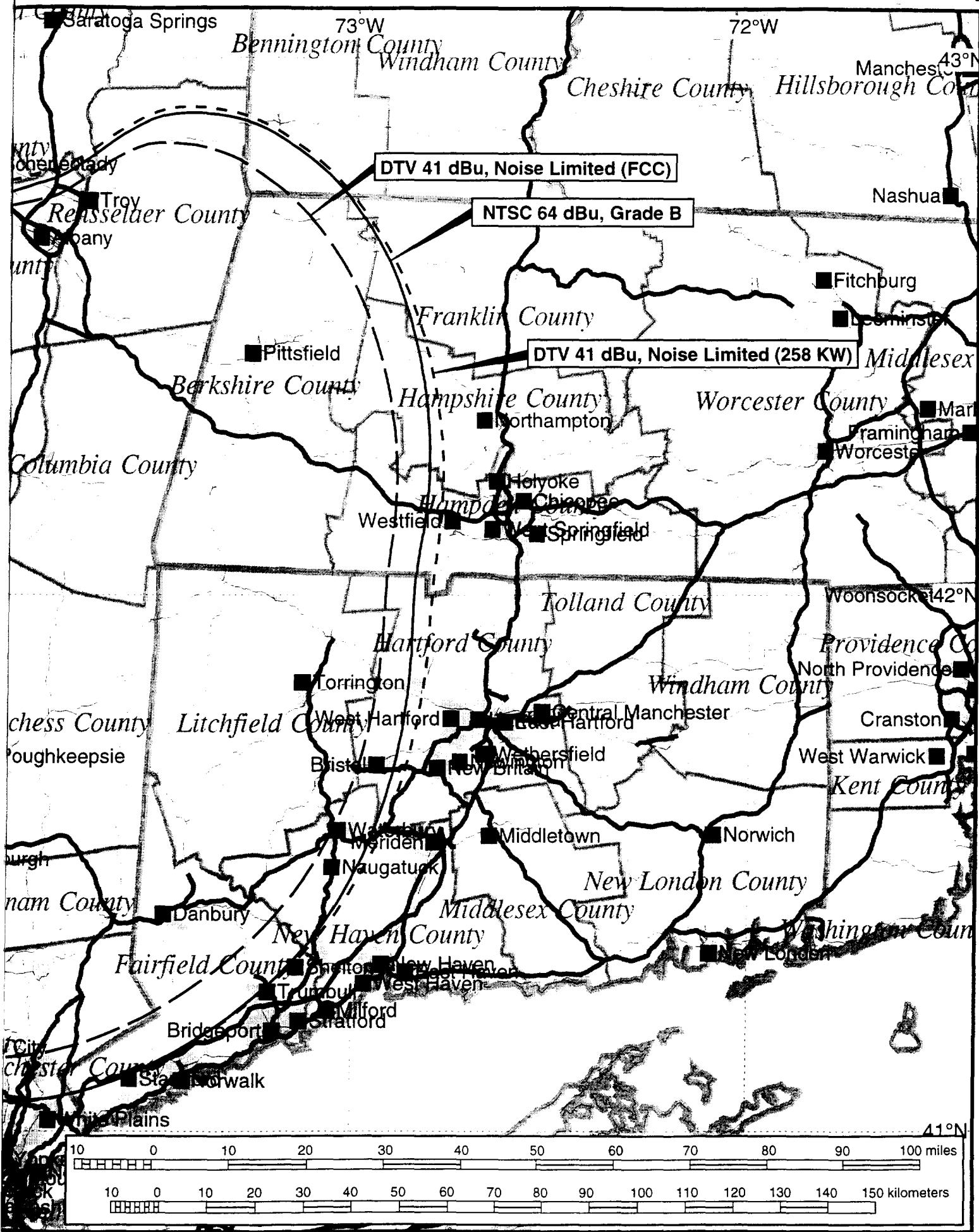
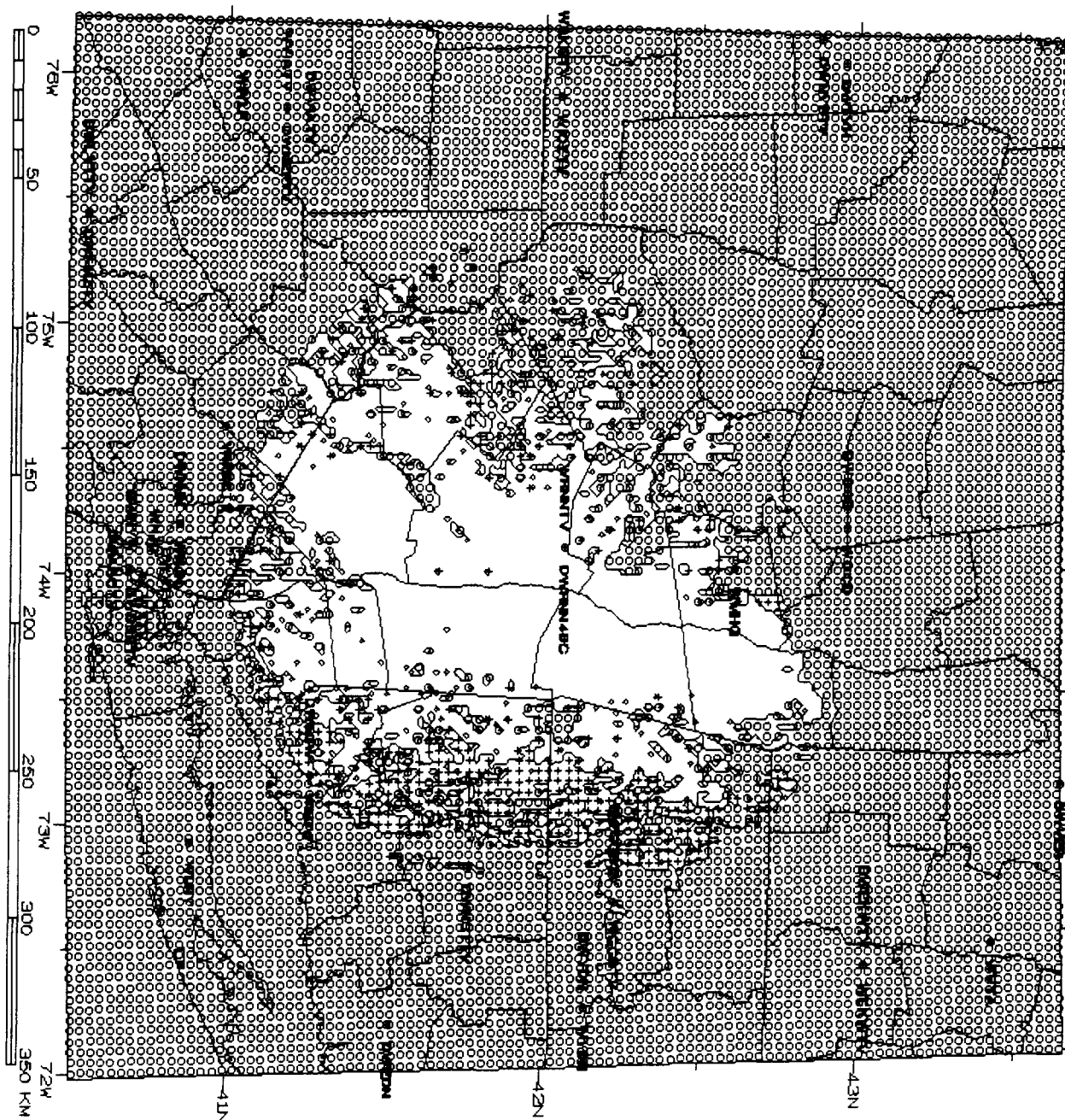


Figure 5



WRNN - Proposed DTV CH 48 (ERP 258 kW)



- Signal to Interference ratio
- ☐ No Interference
 - Area: 18850. sq km
 - Population: 2043000.
 - Households: 729000.
 - ☐ HDTV Interference
 - Area: 0. sq km
 - Population: 0.
 - Households: 0.
 - ☐ NTSC Interference
 - Area: 4270. sq km
 - Population: 461000.
 - Households: 163000.
 - ☐ Signal below minimum
 - Area: 98450. sq km
 - Population: 19105000.
 - Households: 7925000.

TA Services
 JEFF
 DWNN48-1R
 21-Apr-97 22:41:13
 RS146Junt2970qnes